Distributed by:

JAMECO® ELECTRONICS

www.Jameco.com ✦ 1-800-831-4242

The content and copyrights of the attached material are the property of its owner.

3 ½ Digit LCD Digital Panel Meter
PM-128 / PM-188

1. Features

- 200mV full scale input sensitivity
- Single 9VDC operation
- Decimal point selectable
- 13mm figure height
- Automatic polarity indication
- Guaranteed zero reading for 0 volt input
- High input impedance (> 100MΩ)
- Easy bezel fixing method

2. Applications

Voltmeter	Current Meter
Thermometer	Capacitance Meter
PH Meter	Lux Meter
dB Meter	LCR Meter
Watt Meter	Other industrial & domestic uses

3. Specifications

- Maximum input: 199.9mVDC
- Maximum display: 1999 counts (3 ½ digits) with automatic polarity indication
- Indication Method: dual-slope integration A-D converter system
- Reading rate time: 2-3 readings per second
- Input impedance: >100MΩ
- Accuracy: +/-5% (23^0 +/-5^0, 80% RH)
- Power dissipation: 1mADC
- Decimal points: Selectable with wire jumper
- Supply voltage: 7 – 11VDC
- Size: 68mm x 44mm

4. Operation:

A) If needed, add proper voltage dividers (not included) and decimal point wire jumper

Max. Voltage to be Measured	Proper Voltage Divider	Decimal Point Fixing Method
200mV	----	Short-circuit P1 on and P2, P3 off
20V	Disconnect wire jumper in RB, RA = 100kΩ RB = 9.9MΩ	Short-circuit P2 on and P1, P3 off
200V	Disconnect wire jumper in RB, RA = 10kΩ RB = 9.99MΩ	Short-circuit P1 on and P2, P3 off
500V	Disconnect wire jumper in RB, RA = 1kΩ RB = 9.999MΩ	

Short circuit N on to enable polarity signs function or short-circuit N off to disable polarity sign function. RA and RB are 1/2W 0.5% metal film resistors.

B) Connect 7 – 11 VDC power supply to panel meter, pay attention to the proper polarity.

C) For range other than 200mV, input accurate 1/2x max. voltage generated by calibrator (e.g. 100.0V for 200.0V range) and carefully adjust the semi-fixed resistor R4 to have same reading in LCD.

D) Connect the input voltage to be measured to Vin and GND. The input voltage should be DC only.

3 ½ Digit LED Digital Panel Meter
PM129A (Independent Power Supply)
PM129B (Common Ground Power Supply)

1. Features:

- 200mV full scale input sensitivity
- Single DC operation
- Decimal point selectable
- 0.56" figure height
- Automatic polarity indication
- Guaranteed zero reading for 0 volt input
- High input impedance (>100MΩ)
- Easy bezel fixing method

2. Applications:

Voltmeter	Current Meter
Thermometer	Capacitance Meter
PH Meter	Lux Meter
dB Meter	LCR Meter
Watt Meter	Other industrial and domestic uses

3. Specifications:

- Maximum input: 199.9mV
- Maximum display: 1999 counts (3 ½ digit) with automatic polarity indication
- Indication method: LED display
- Measuring method: dual-slope integration A-D converter system
- Over-range indication: "1" shown in the display
- Reading rate time: 2 – 3 readings per second
- Input impedance: >100MΩ
- Accuracy: +/-5% (23^0 +/-5^0, <80%RH)
- Power dissipation: 60mA DC
- Decimal points: selectable with wire jumper
- Supply voltage: PM129A: 7 to 11VDC; PM129B: 5VDC
- Size: 68mm x 44mm

4. Operation:

A) If needed, add proper voltage dividers (not included) and decimal point wire jumper

Range	Proper Voltage Divider		Decimal Point Fixing Method	
	PM129A	PM129B	PM129A	PM129B
200mV	--	--	Short-circuit P3	Short-circuit P3-P0
20V	Disconnect wire jumper in RA, RA=9.9MΩ RB=100kΩ	Disconnect wire jumper in RB, RA=100kΩ RB=9.9MΩ	Short-circuit P2	Short-circuit P2-P0
200V	Disconnect wire jumper in RA, RA=9.99MΩ RB=10kΩ	Disconnect wire jumper in RB, RA=10kΩ RB=9.99MΩ	Short-circuit P3	Short-circuit P3-P0
500V	Disconnect wire jumper in RA, RA=9.999MΩ RB=1kΩ	Disconnect wire jumper in RB, RA=1kΩ RB=9.999MΩ		

RA and RB are 1/2W 0.5% metal film resistors

B) Connect 7 to 11VDC (PM129A) or 5VDC (PM129B) power supply to panel meter and pay attention to the proper polarity.

C) For range other than 200mV, input accurate 1/2x maximum voltage generated by calibrator (e.g. 100.0V for 200.0V range) and carefully adjust the semi-fixed resistor to have same reading in LED.

D) Connect the input voltage to be measured in Vin and –Vin / GND. The input voltage should be DC only.